

Substitute for form 1449/PTO

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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Use as many sheets as necessary)

Complete if Known

Sheet 1 of 4

Application Number	10/575,993
Filing Date	October 19, 2004
First Named Inventor	Robert E. Hefner Jr.
Art Unit	Not Assigned
Examiner Name	Not Assigned
Attorney Docket Number	62750A

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date (MM-DD-YYYY)	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
		US-4,400,540	08-23-1983	Bruce A. Reinhardt, et al.	
		US-5,189,117	02-23-1993	Robert E. Hefner Jr.	
		US-5,270,406	12-14-1993	Jimmy D. Earls et al.	
		US-5,637,669	06-10-1997	Robert E. Hefner Jr. et al.	
		US-5,965,679	10-12-1999	James P. Godschalk, et al.	
		US-6,156,812	12-05-2000	Kreislau Lau, et al.	
		US-6,172,128 B1	01-09-2001	Kreislau Lau, et al.	
		US-6,359,091 B1	03-19-2002	James P. Godschalk, et al.	
		US-6,653,358 B2	11-25-2003	Kenneth J. Bruza, et al.	
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		US-2005/0014855 A1	01-20-2005	Kenneth J. Bruza	
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Examiner Signature	/Sikari Witherspoon/	Date Considered	08/03/2009
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First Names Inventor	Robert E. Hefner Jr.
Art Unit	Not Assigned
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FOREIGN PATENT DOCUMENTS

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		Examiner Name	Not Assigned
Sheet 3	of 4	Attorney Docket Number	62750A

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.†	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T6
✓	BAKER, G. L. and J. K. Stille, "Hexaarybenzene Units as Cross-Linking Sites for Polyquinolines", <i>Macromolecules</i> , 1979, pages 369-373, Volume 12, No. 3.	<input type="checkbox"/>	
✓	BRAHAM, J. N., T. Hodgins, T. Katto, R. T. Kohl, and J. K. Stille, "Polyphenylenes via Bis(2-pyrones) and Diethynylbenzenes. The Effect of m- and p- Phenylene Unites in the Chain", <i>Macromolecules</i> , 1978, pages 343-346, Volume 11, No. 2.	<input type="checkbox"/>	
✓	CAPEK, Ignac and Jakub Chudel, "On the fine emulsion polymerization of styrene with non-ionic emulsifier," <i>Polymer Bulletin</i> , Vol. 1999, 43, pp. 417-424	<input type="checkbox"/>	
✓	DONESCU et al., "The Influence of Monomers upon Microemulsions with Short Chain Cosurfactant," <i>J. Dispersion Science and Technology</i> , Vol. 22, Nos. 2&3, pp. 231-244, 2001.	<input type="checkbox"/>	
✓	FELDMAN, Ken S., Robert E. Ruckie, Jr., Susan M. Ensel and Paul H. Weinreb, "Synthesis of a Chiral Binaphthylsulfide: A Potentially Useful Reagent for Catalytic Asymmetric Synthesis", <i>Tetrahedron</i> , 1992, pages 7101-7102, Volume 33, No. 47.	<input type="checkbox"/>	
✓	GUTSCHE et al., "Calixarenes. 6. Synthesis of a Functionalizable Calix[4]arene in a Conformationally Rigid Cone Conformation," <i>J. Am. Chem. Soc.</i> , Vol. 104, pp. 2652-2653 (1982)	<input type="checkbox"/>	
✓	KRAFT, Amo et al., "Supramolecular liquid crystals with columnar mesophases through self-assembly of carboxylic acids around a tribasic core," <i>Chem. Comm.</i> pp. 1015-1016 (2000)	<input type="checkbox"/>	
✓	KUMAR, Uday and Thomas X. Neenan, "Diels-Alder Polymerization between Bis(cyclopentadienones) and Acetylenes. A Versatile Route to New Highly Aromatic Polymers", <i>Macromolecules</i> , 1995, pages 124-130, Volume 28, No. 1.	<input type="checkbox"/>	
✓	LARPENT, C. and T. F. Tadros, "Preparation of microlatex dispersions using oil-in-water microemulsions", <i>Colloid Polymer Science</i> , 1991, pages 1171-1183, Volume 269, No. 11.	<input type="checkbox"/>	
✓	LEE, Hyung-Kun et al., "Synthesis of a Nanoporous Polymer with Hexagonal Channels from Supramolecular Discotic Liquid Crystals," <i>Angew. Chem. Int. Ed.</i> , Vol. 40, No. 14, pp. 2669-2671 (2001)	<input type="checkbox"/>	
✓	LIU, Zhi, and Jerold Meinwald, "5-(Trimethylstanny)-2H-pyran-2-one and 3-(Trimethylstanny)-2H-pyran-2-one: New 2H-Pyran-2-one Synthons", <i>J. Org. Chem.</i> , 1996, pages 6693-6699, Volume 61, No. 19.	<input type="checkbox"/>	
✓	MCDONALD et al., "Diels-Alder Reactivity of Oxygenated Dienes and Furans. Synthesis of Oxygenated Biphenyls," <i>J. Chem. Soc. Perkin Trans.</i> , Vol. 1, pp. 1893-1900, 1979.	<input type="checkbox"/>	
✓	OGLIARUSO, Michael A. and Ernest I. Becker, "Bistetracyclones and Bisexaphenylbenzenes. II", <i>J. Org. Chem.</i> , 1965, pages 3354-3360, Volume 30.	<input type="checkbox"/>	
✓	OGLIARUSO, Michael A., Lewis A. Shadoff and Ernest I. Becker, "Bistetracyclones and Bisexaphenylbenzenes", <i>J. Org. Chem.</i> , 1963, pages 2725-2728, Volume 28.	<input type="checkbox"/>	
✓	PUEETTER et al., <i>J. Prakt. Chem.</i> , 1951, Vol. 149, pp. 183-216	<input type="checkbox"/>	
✓	SCHILLING, Jr., Curtis L., Joe A. Reed, and J. K. Stille, "Diels-Alder Polymerizations. VI. Phenylated Polyphenylenes from Bis-2-pyrones and p-Diethynylbenzene", <i>Macromolecules</i> , 1969, pages, 85-88, Volume 2, No. 1.	<input type="checkbox"/>	
✓	TONG, Ling, Douglas M. Ho, Nancy J. Vogelaar, Clarence E. Schutt, and Robert A. Pascal, Jr., "The Albatrosses: Large, Cleft-Containing, Poly(phenyl) Polycyclic Aromatic Hydrocarbons", <i>J. Am. Chem. Soc.</i> , 1997, pages 7291-7302, Volume 119, No. 31.	<input type="checkbox"/>	
✓	TURCHI, Stefania, Fodolfo Nesi, and Donatella Giomi, "Reactions of 4,5-Dicyanopyridazine with Alkynes and Enamines: a New Straightforward Complementary Route to 4-Mono- and 4,5-Disubstituted Phthalonitriles", <i>Tetrahedron</i> , 1998, pages 1809-1816, Volume 5.	<input type="checkbox"/>	
✓	VANKERCKHOVEN, Henk F., Yvan K. Gilliams, and J. K. Stille, "Poly(p-phenylene). The Reaction of 5,5'-p-Phenylenes-2-pyrone with p-Diethynylbenzene", <i>Macromolecules</i> , pages 541-546, Volume 5, No. 5. 1972.	<input type="checkbox"/>	
✓	H. WARSON, <i>The Applications of Synthetic Resin Emulsions</i> , 1972, p. 88	<input type="checkbox"/>	

Examiner Signature /Sikari Witherspoon/ Date Considered 08/03/2009

*Examiner: Initial & reference considered, whether or not citation is in conformance with MPEP 608. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. †Applicant's unique citation designation number (option). ‡Applicant to place a check mark here in English language Translation is attached. This collection of information is required 37 CFR 1.64. The information is required to obtain or retain a benefit by the public which is to (a) send by the USPTO to process an application. Confidentiality is guaranteed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing and submitting the completed application form to the USPTO. The fee will depend upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P. O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450.

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Sheet 4 of 4

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. 1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶
✓		WIESLER, U.-M., A. J. Barresheim, F. Morgenroth, G. Lieser, and K. Müllen, "Divergent Synthesis of Polyphenylene Dendrimers: The Role of Core and Branching Reagents upon Size and Shape", <i>Macromolecules</i> , 2001, pages 187-199, Volume 34, No. 2.	
✓		Zhong, Ben et al., "Porous ultra low-k dielectrics having ultra small pores", Abstracts of Papers, 224 th ACS National Meeting, Boston, MA, August 18-22, 2002, Published by the American Chemical Society	<input type="checkbox"/>
		CHEMICAL ABSTRACT 2001:404713	<input type="checkbox"/>
		CHEMICAL ABSTRACT 2003:570956	<input type="checkbox"/>
		CHEMICAL ABSTRACT 2002:566264	<input type="checkbox"/>
		CHEMICAL ABSTRACT 2000:133674	<input type="checkbox"/>
		CHEMICAL ABSTRACT 1999:184247	<input type="checkbox"/>
		CIFERRI, Albert ed., <u>Liquid Crystallinity in Polymers: Principles and Fundamental Properties</u> , Chapter 8. Liquid-Crystalline Sidechain Polymers. H. Finkelmann, pp. 315-340 (1991)	<input type="checkbox"/>
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